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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,655	04/02/2004	Paul E. Cook	1268.3003.002	3396

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EXAMINER	
PHASGE, ARUN S	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
12/22/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/817,655	COOK ET AL.	
	Examiner	Art Unit	
	Arun S. Phasge	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

Claims 1-4, 8-10, 12 and new claim 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim of record for reasons of record in view of Carlson of record for reasons of record.

The new claim recites the fracturing of said deposited portions into pieces and using the fractured recovered portions as a source of metal to be deposited onto a substrate in a subsequent plating process.

The Carlson patent discloses the removal of the cathode from the deposited metal by burning or dissolution of the cathode. This would produce the fractured pieces of metals claimed. Both the Carlson and Kim patents teach that the recovered metal can be used as anodes in electroplating baths or by chemical dissolution to form an electroplating bath as in Carlson.

Consequently, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the disclosure of the Kim patent with the teachings of Carlson, because the Carlson patent teaches the removal of the cathode to form pieces of deposited metal which can be chemically or electrolytically dissolved to form electroplating baths.

Claims 5-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kim in view of Carlson as applied to claims above, and further in view of De Nora of record for reasons of record.

Response to Arguments

Applicant's arguments filed 11/24/08 have been fully considered but they are not persuasive.

With respect to the combination of Kim and Carlson, applicants argue “nowhere in Kim, nor Carlson, nor the combination thereof, does it specifically describe a substrate, much less using the recovered deposited metal on the metallic cathode and the metallic cathode as a source of metal to be deposited on to a substrate in a subsequent metal plating process. Given that the proposed combination of Kim and Carlson does not disclose each element claimed in claims 1-4, 8-10 and 12, the Examiner has not stated *a prima facie* case of obviousness, and the rejection must be overturned.”

The Kim patent states, "At regular intervals, the cathode (the cathode being used is made of the same material being reclaimed, i.e., copper) is removed from reactor 20 and the reclaimed metal may either be salvaged or returned to the plating bath 10, for example as part of the plating bath anode" (col. 3, lines 4-7). If there is no substrate in the plating bath, then the plating bath is no longer a plating bath, merely a bath having a metal anode. Additionally, this disclosure in the Kim patent either teaches the removal of the deposited metal from the cathode before using the deposited metal as the anode or that the cathode containing the deposited metal is used as the anode in the plating

bath. Either of the readings of the patent would render obvious at least one embodiment of the instant claimed invention.

Surely applicants are not saying that a plating bath would not contain a substrate. If this is the argument, what is being plated if not a substrate? Furthermore, applicants have not cogently explained how a process showing the reuse of the reclaimed metal as the anode in a plating bath can now be said to not be reused in a plating bath.

Likewise, the Carlson patent was cited to show the myriad mechanisms that one having ordinary skill in the art would salvage metal deposited upon a cathode. The patent teaches the removal of the cathode by burning or dissolution (which would read upon the claimed fracturing of the deposited metal, because once the cathode is removed the metal pieces would deposited upon the cathode would be fractured (see col. 2, lines 10-20). Alternatively, the patent teaches that the metal is removed from the cathode by chemical means or by the reversal of polarity (i.e., by the cathode now becoming an anode) to form a concentrated solution which is used in electroplating (see col. 2, lines 23-32).

The electroplating would also inherently have a substrate, since without a substrate the process would not be electroplating. Furthermore, applicants have again failed to cogently show how a process showing the reuse of the deposited metal in an electroplating process can be said to now not show the reuse of the deposited metal in an electroplating process.

Applicants further argue “In addition, with respect to claim 8, neither Kim nor Carlson, alone or in combination, disclose ‘wherein the deposited metal on the cathodes

is fractured into pieces and is used a source of metal ions in an electrochemical deposition of the metal.'

As discussed above, the Carlson patent discloses the removal of the cathode from the deposited metal by burning or dissolution of the cathode. This would produce the fractured pieces of metals claimed. Both the Carlson and Kim patents teach that the recovered metal can be used as anodes in electroplating baths or by chemical dissolution to form an electroplating bath as in Carlson.

With respect to the combination of de Nora with the Kim and Carlson patents, applications state "thus, de Nora, like Kim and Carlson, does not describe a substrate, much less using the recovered deposited metal on the metallic cathode and the metallic cathode as a source of metal to be deposited on to a substrate in a subsequent metal plating process. Given that the proposed combination of references does not disclose each element claimed in claims 5-7 and 11, the Examiner has not stated *prima-facie* case of obviousness, and the rejection must be overturned. Reconsideration of claims 5-7 and 11 is thus respectfully requested. "

As shown above, the Kim and Carlson patent would inherently describe a substrate, since electroplating would need a substrate to be plated upon.

Accordingly, the claims are rejected.

Conclusion

This is a RCE of applicant's earlier Application No. 10/817,655. All claims are drawn to the same invention claimed in the earlier application and could have been

finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Arun S. Phasge whose telephone number is (571) 272-1345. The examiner can normally be reached on MONDAY-THURSDAY, 7:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam X. Nguyen can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Arun S. Phasge/
Primary Examiner, Art Unit 1795

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